

### **Amendments to the Claims:**

Please amend claims 1-7 and 9 and add claims 10-15 as shown in the following listing of claims. This listing of claims will replace all prior versions, and listings, of claims in the application:

### **Listing of Claims:**

1. (currently amended) A receiver for a multi-carrier communication system, the receiver comprising:

a channel corrector ~~(173)~~ for receiving an input signal ~~(CDC2)~~ and a correction control signal ~~(EC)~~ to correct an amplitude ~~and/or~~ and a phase of the input signal ~~(CDC2)~~ to obtain a corrected signal ~~(ED)~~, and

a channel estimator ~~(19)~~ comprising a slicer ~~(190)~~ for performing a hard-decision on the corrected signal ~~(ED)~~ to obtain a decided signal ~~(HDS)~~, the correction control signal ~~(EC)~~ being dependent on a difference between the input signal ~~(CDC2)~~ and the decided signal ~~(HDS)~~ to decrease said difference.

2. (currently amended) A receiver for a multi-carrier communication system as claimed in claim 1, wherein the receiver further comprises a Fast Fourier Transform circuit ~~(16)~~ for supplying the input signal ~~(CDC2)~~, the input signal ~~(CDC2)~~ representing a phase and an amplitude of a particular received data carrier ~~(DC)~~.

3. (currently amended) A receiver for a multi-carrier communication system as claimed in claim 1, wherein the channel estimator ~~(19)~~ further comprises a comparing circuit ~~(192)~~ for comparing the input signal ~~(CDC2)~~ with the decided signal ~~(HDS)~~ to obtain a comparison signal ~~(NE)~~, the correction control signal ~~(EC)~~ being dependent on said comparison signal ~~(NE)~~.

4. (currently amended) A receiver for a multi-carrier communication system as claimed in claim 1, wherein the channel estimator ~~(19)~~ further comprises

an initial estimator (191) for estimating an initial estimate (IE) of the correction control signal (EC) based on pilot symbols (T1, T2) in the input signal (CDC2),

a comparing circuit (192) for comparing the input signal (CDC2) with the decided signal (HDS) to obtain a difference signal (NE), and

a filter (193) for weighting the difference signal (NE) and the initial estimate (IE).

5. (currently amended) A receiver for a multi-carrier communication system as claimed in claim 1, wherein the input signal (CDC2) represents a phase and an amplitude of a particular received data carrier (DC) and wherein the decided signal (HDS) represents a phase and an amplitude of a transmitted carrier corresponding to the particular received data carrier (DC).

6. (currently amended) A receiver for a multi-carrier communication system as claimed in claim 3, wherein the input signal (CDC2) represents a phase and an amplitude of a particular received data carrier (DC) and wherein the decided signal (HDS) represents a phase and an amplitude of a transmitted carrier corresponding to the particular received data carrier (DC), and wherein the comparing circuit (192) compares the phase and the amplitude of the input signal (CDC2) with the phase and the amplitude of the decided signal (HDS), respectively, to obtain the correction control signal (EC) for controlling the channel corrector (173) to correct the phase and the amplitude of the input signal (CDC2).

7. (currently amended) A method of receiving a multi-carrier carrier modulated signal, the method comprising:

performing channel correcting (173), wherein performing channel correcting includes receiving an input signal (CDC2) and a correction control signal (EC) to correct an amplitude ~~and/or~~ and a phase of the input signal (CDC2) to obtain a corrected signal (ED), and

performing channel estimation (19), wherein performing channel estimation includes comprising slicing (190)-performing a hard-decision on the corrected signal (~~ED~~) to obtain a decided signal (~~HDS~~), the correction control signal (~~EC~~) being dependent on a difference between the input signal (~~CDC2~~) and the decided signal (~~HDS~~) to decrease said difference.

8. (original) A multi-carrier communication system comprising a receiver as claimed in claim 1.

9. (currently amended) A wireless multi-carrier communication system comprising a receiver as claimed in claim 1, wherein said system comprises a transmitter for transmitting a modulated multi-carrier high frequent signal via air, and the receiver comprises means (~~4~~) for receiving said high frequent signal.

10. (new) A receiver for a multi-carrier communication system as claimed in claim 4, wherein the filter is further configured to generate an updated channel estimate, the updated channel estimate being defined as:

$$EC = \alpha NE - (1 - \alpha) IE,$$

where EC is the updated channel estimate, NE is the difference signal, IE is the initial estimate, and  $\alpha$  is a predefined value.

11. (new) A receiver for a multi-carrier communication system as claimed in claim 4, wherein the channel estimator further comprises an averaging unit configured to average the initial estimate and the difference signal.

12. (new) A receiver for a multi-carrier communication system, the receiver comprising:  
a Fast Fourier Transform circuit for supplying input signals, each of the input signals representing a phase and an amplitude of a particular received data carrier;  
a channel corrector for receiving the input signals and a correction control signal to correct a common phase error and a common amplitude error of each of received data carriers to obtain corrected signals, wherein the common phase errors of the

received data carriers are identical, the common amplitude errors of the received data carriers being identical; and

a channel estimator comprising a slicer for performing a hard-decision on the corrected signals to obtain decided signals, the correction control signal being dependent on a difference between the input signals and the decided signals to decrease said difference.

13. (new) A receiver for a multi-carrier communication system as claimed in claim 12, wherein the channel estimator further comprises

an initial estimator for estimating an initial estimate of the correction control signal based on pilot symbols in an input signal,

a comparing circuit for comparing the input signal with a decided signal to obtain a difference signal, and

a filter for weighting the difference signal and the initial estimate.

14. (new) A receiver for a multi-carrier communication system as claimed in claim 13, wherein the filter is further configured to generate an updated channel estimate, the updated channel estimate being defined as:

$$EC = \alpha NE - (1 - \alpha) IE,$$

where EC is the updated channel estimate, NE is the difference signal, IE is the initial estimate, and  $\alpha$  is a predefined value.

15. (new) A receiver for a multi-carrier communication system as claimed in claim 13, wherein the channel estimator further comprises an averaging unit configured to average the initial estimate and the difference signal.